STATE OF UTAH GENERAL OUTLOOK
Mar 1, 2005

SUMMARY
One month left in the normal snowpack accumulation season and we are all reminded what happened last March - incredibly warm and dry. Could we have a repeat of last years disaster and what would it mean for this years water supply. Given record snowpacks in southern Utah and the Uintah basin, a warm dry March would certainly lessen the potential for high streamflows by extending the snowmelt period and removing some of the lower elevation snowpack early on. This kind of climatic scenario could lead other parts of Utah, specifically northern and central, to the same kind of result experienced last year where snowpacks were near to above average and were subsequently devastated by a record warm and dry March. So, if it's not too much to ask, warm and dry in the south and Uintah Basin with wet and cool in the central and northern areas would be just perfect. Overall, water supply conditions are improving statewide compared to years past with reservoir storage on the upswing, soil moisture is vastly improved and snowpacks are all above average. Snowpacks range from 103% over the Bear River Watershed to 237% over southwest Utah. The Uintah Basin at 157% of average is a new record high for March, but incredibly, the 237% in southern Utah is now only in second place to 1993. Many areas have already exceeded an average April 1 peak snowpack such as: Uintah Basin - 129% of average April 1 peak, Sevier - 136%, Southeast - 121% and the Southwest - 211% of April 1. With record snowpacks, comes the potential for very high snowmelt streamflow. For some streams like Coal Creek which has over 297% of average snowpack and has broken the old maximum record snowpack by 6.5 inches of snow water equivalent, it is likely not if, but merely when the high flows will occur. This is the equivalent of breaking the 4 minute mile by 30 seconds. Normally, long term climate records are broken by fractions of inches or tenths of degrees, not shattered by half a foot! While many outcomes remain possible in these areas, it is prudent to begin preparation for potentially high snowmelt streamflow this spring. Precipitation for February was near average statewide at 101%. Northern Utah ranged from 80% to 110% and southern Utah had 115% to 165% of average. This brings the seasonal precipitation, (Oct-Feb) to 145%. Soil moisture was substantially recharged from large precipitation events in late fall and early winter as well as the recent precipitation events. Current soil moisture as a percent of saturation across the entire state is only about 10% to 15% less than what it was during active snowmelt of last spring. Estimates of soil moisture range from about 40% to 75% of saturation in the upper 24 inches of soil. Low reservoir storage is becoming less of a concern with total reservoir storage at 45% of capacity, up 4% from last year. The area of greatest drought concern is the Bear River with current reservoir storage at only 4% of capacity. Areas that could have high streamflows include the Uintah Basin, southeast Utah, Escalante, upper Sevier and the Virgin. Streamflow forecasts range from 51% to 299% of average. Surface Water Supply Indices range from 4% on the Bear River, to 95% on the Virgin.

SNOWPACK
February first snowpacks as measured by the NRCS SNOTEL system range from 103% on the Bear to 237% in southwestern Utah. Most areas in northern Utah are 10% to 20% higher than last year, whereas the Uintah Basin and everything south of Salina have 150% to 200% of the snowpacks of last year. The Midway Valley SNOTEL site currently has 58 inches of snow water equivalent and its April 1 average peak is only 27 inches. Of some concern are low elevation snowpacks across the state, which are below average. The Uintah Basin, Upper Sevier and southwest Utah have already surpassed their April 1 snowpack average and could easily be in the 150% to 200% of average category by April 1. Any outcome is still possible in northern Utah, including continued drought conditions.

PRECIPITATION
Mountain precipitation during February was much above average over southern Utah (115%-165%). In northern Utah, precipitation was 80% to 102% of average. This brings the seasonal accumulation (Oct-Feb) to 145% of average statewide.

RESERVOIRS

Storage in 41 of Utah's key irrigation reservoirs is at 45% of capacity. This is an increase of 4% from last year and reflects heavy use of reservoir storage to make up the streamflow deficit during years of drought.

STREAMFLOW

Snowmelt streamflows are expected to be below average to well above average across the state of Utah this year. Forecast streamflows range from 51% on the Bear at Stewart dam to 299% on North Creek near Monticello. Most flows are forecast to be in the 100% to 160% range. Overall water supply conditions are improving.